Understanding by Design is an instructional strategy that places emphasis on a student’s understanding of the subject rather than simple knowledge of the subject. As a whole, teaching environments are undergoing a shift to provide more comprehensive command of subject matter in a more student-centered environment. Understanding by Design is a major component of this movement. In this summary, I will explore the dimensions of understanding, the goals of Understanding by Design, and common criticisms of this instructional strategy.

Boyes (2006) writes that true understanding is typically demonstrated by the ability to explain, relate, and apply what has been learned or by taking on another’s perspective (p. 13). This is described further in Dyer’s (2008) article as she covers the Six Facets of Understanding. It is believed that when a student truly understands what they have been taught, they will be able to explain the subject matter, interpret the subject matter apply the subject matter in new contexts, take on others’ perspective, empathize with those alternate perspectives, and have self-knowledge about their learning (p. 34).

Typically, this is achieved by asking more open-ended questions that encourage discussion rather than close-ended questions that can be satisfied with a simple response. An example offered by Boyes (2006) is this: “How would life be different if we couldn’t measure time?” as opposed to “How many minutes are in an hour, how many hours in a day?” (p. 14) While the second question addresses important information, it can be answered simply with “Sixty. Twenty-four.” The first question is superior because it opens up the floor for a discussion of what time is and why it is important. This can eventually lead to a student’s learning why there are sixty minutes in an hour and twenty-four hours in a day, which would lead to a far more profound and complete understanding of the concept of time.

Integrating Understanding by Design into lesson planning relies greatly upon Backward Design. Boyes (2006) describes the backward planning process by the example of the space race. In the summer of 1961 in an address to a joint session of Congress, John F. Kennedy announced the goal of landing a man safely on the moon before the end of the decade (p. 14). With their goal in place, NASA spent the decade experimenting, researching, and engineering an American space program that was capable of meeting the president’s goal. As we know, that goal was met in the summer of 1969 with Apollo 11’s successful visit to the moon. In much the same way, teachers must select goals or establish big ideas and then find a way to connect their students to that goal.

In his review of Tomlinson and McTighe’s work, Garelick (2010) finds some shortcomings in the Understanding by Design model. His first criticism arises from the authors’ assertion that some work is authentic while other work is inauthentic. Essentially, any work without a clear real-world application is what is labeled as inauthentic. However, how can a student tackle progressively abstract and intricate mathematical problems without first learning the basic skills that are necessary to solve those more advanced problems? Tomlinson and McTighe insist that these skills can be learned by “contextualized grappling with ideas and processes” (p. 201). For example, in a lesson regarding quadratic equations, students would not learn the rules of factoring before progressing. Instead, they would begin by solving something like X2 + 5X + 6 = 0. In the process of solving this equation, it is assumed that students will learn the skills that they need to solve quadratic equations just in time to do so. Garelick (2010) likens this approach to “throwing [the student] in the deep end of the pool and telling them to swim to the other side” (p. 202). This is an understandable reaction because this approach to instruction seems as though it would allow some students to flourish while others just get by.

Though there are some encouraging concepts at work in the Understanding by Design model, I feel that it is not comprehensive enough to stand alone as the primary instructional strategy in a classroom. Like with any theory, there are gaps in UBD that must be filled in by other research-based theories in order to make learning effective and constructive for all students. This is not to say that I find UBD to be useless. I find it to be more effective as a planning strategy rather than a comprehensive teaching strategy.

Boyes K (2006). Understanding by Design and Backward Design. *Education Today*. *2006(3)*, 13-14.

Dyer J (2008). Understanding by Design: Teaching Complex Global Issues. *Ethos*. 33-35.

Garelick B (2010). Integrating Differentiated Instruction and Understanding by Design. *Educational Horizons*. *88(4)*, 199-202.